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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

IBARAKI et al.

Group Art Unit: 2856

Serial No. 09/986,911

Examiner: Ryan A. Jarrett

Filed: November 13, 2001

Atty. Docket No.: 59558.00003

For: METHOD AND DEVICE FOR WORKING PLANNING, AND METHOD AND
DEVICE FOR PRODUCING WORKING DATA THEREFOR

RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

March 23, 2006

Sir:

The Office Action dated February 23, 2006 has been received and carefully noted.

The following remarks are submitted as a full and complete response thereto.

The Office Action of February 23, 2006 presented a restriction requirement, requiring
election between one of the following I-XI inventions:

Invention I, recited in claims 1, 2, 45-48, and 61-69, drawn to a method of
working planning in determining order of working at a plurality
of working areas scattered on workpiece, the plurality of
working areas to be simultaneously worked;

Invention II, recited in claims 3, 4, 21, 49, 50, and 57, drawn to a working
planning method in determining order of working by applying a
traveling salesman problem to a plurality of working positions

scattered on a workpiece or working areas set in a workpiece;

Invention III, recited in claims 5-7, and 51, drawn to a work planning method in determining placement of working areas;

Invention IV, recited in claims 8 and 52, drawn to a work planning method in determining placement of working areas;

Invention V, recited in claims 9 and 53, drawn to a work planning method in determining placement of working areas;

Invention VI, recited in claims 10-15, and 54, drawn to a work planning method in determining placement of working areas;

Invention VII, recited in claims 16, 17, and 55, drawn to a work planning method in determining placement of working areas to be worked by working means based on working positions scattered on a workpiece, said method comprising, when the same working position belongs to a plurality of areas, determining said areas to be worked so that number of working positions belonging to each of a plurality of simultaneous working areas is equal;

Invention VIII, recited in claims 18-20, and 56, drawn to a work planning method in determining placement of working areas to be worked by working means based on working positions scattered on a

workpiece, said method comprising the step of adjusting an area position so that working positions are gathered to center of each working area;

Invention IX, recited in claims 22-25, 58, and 59, drawn to a working planning method in simultaneously working a workpiece placed on a movable stage by a plurality of working units capable of scanning or moving working means within a working area comprising determining an interval between the working units so that number of scanning or moving the working means or number of moving the stage is minimized.

Invention X, recited in claims 26-40, 43, 44, and 60, drawn to a working planning method in a working a workpiece using working means of scanning or moving in a plurality of directions, wherein point position data representing working positions or working areas scattered on the workpiece is expressed in a tree type data structure;

Invention XI, recited in claims 41 and 42, drawn to a working planning method wherein an unnecessary, high load operation is removed by finding a set of areas in which placement of point data in one

of the working areas and placement of point data in another working area are relatively matched.

Applicants respectfully elect to prosecute the subject matter of Invention IX, recited in claims 22-25, 58, and 59, drawn to a working planning method in simultaneously working a workpiece placed on a movable stage by a plurality of working units capable of scanning or moving working means within a working area comprising determining an interval between the working units so that number of scanning or moving the working means or number of moving the stage is minimized.

Additionally, the Office Action required Applicants to elect one of the following species if Invention IX was elected:


- a) Claim 23
- b) Claim 24
- c) Claims 25 and 59.

Applicants respectfully elect species (b), namely claim 24. Applicants therefore respectfully request timely consideration on the merits.

Applicants reserve the right to file a divisional application on the non-elected claims at any point prior to the termination of the proceedings in the subject application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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